AMENDMENTS TO THE CLAIMS

This listing of claims replaces all prior versions, and listings, of claims in the application.

1. (Previously Presented) A printing sleeve comprising, successively and radially from the interior to the exterior, a radially internal compressible layer, a circumferential stiffening layer, and a printing layer, wherein the circumferential stiffening layer has a thickness not exceeding 0.5 mm and a Young's modulus in the circumferential direction of at least 400 MPa, and wherein the stiffening layer is capable of undergoing a deviation of 100 to 500 microns without fracture.

2. (Previously Presented) The printing sleeve according to Claim 1, including, on a radially internal surface of the compressible layer, a removal facilitating layer.

3. (Previously Presented) The sleeve according to Claim 1 wherein the circumferential stiffening layer is on the compressible layer as a reinforcing layer.

4. (Previously Presented) The printing sleeve according to Claim 3, wherein the circumferential stiffening layer includes reinforcing elements selected from the group consisting of fibers, wires, a knit, a fabric, and a screen, in a matrix of a thermosetting or a thermoplastic polymer.

5. (Previously Presented) The printing sleeve according to Claim 4, wherein the reinforcing elements have a single directional arrangement and are oriented generally circumferentially.

6. (Previously Presented) The printing sleeve according to Claim 4, wherein the matrix is 20-80 wt% of the circumferential stiffening layer, and the reinforcing elements are 80-20 wt% of the circumferential stiffening layer.

7. (Previously Presented) The printing sleeve according to Claim 4, wherein the reinforcing elements are selected from the group consisting of carbon, glass, high modulus polyester, and aramide.

8. (Previously Presented) The printing sleeve according to Claim 3, wherein the circumferential stiffening layer has a thickness larger than 0.2 mm.

9. (Currently Amended) The printing sleeve according to Claim 3, wherein the circumferential stiffening layer has a Young's modulus in the circumferential direction ~~not exceeding 100,000~~ of at least 1,000 MPa.

10. (Previously Presented) The printing sleeve according to Claim 4, wherein the matrix of the circumferential stiffening layer has a Young's modulus between 50 and 1,000 MPa.

11. (Previously Presented) The printing sleeve according to Claim 4, wherein the circumferential stiffening layer has an elongation at breakage in a circumferential direction of the circumferential stiffening layer greater than 1.2%.

12. (Previously Presented) The printing sleeve according to Claim 4, wherein the circumferential stiffening layer has a Young's modulus in a radial direction between 50 and 500 MPa.

13. (Previously Presented) The printing sleeve according to Claim 4, wherein the circumferential stiffening layer has a Young's modulus greater than 100 MPa in a direction parallel to an axis of a cylinder of a printing machine.

14. (Previously Presented) The printing sleeve according to Claim 2, wherein the compressible layer is an elastomer base containing microspheres and at least one expansion agent.

15. (Previously Presented) The printing sleeve according to Claim 14, wherein the compressible layer includes one uniform layer or several superposed under-layers of different compressibilities.

16. (Previously Presented) The printing sleeve according to Claim 14, wherein the compressible layer is produced by one of coating, spraying, and spray gunning of the elastomer base dissolved in a solvent.

17. (Previously Presented) The printing sleeve according to Claim 14, wherein the elastomer base is an endless layer of a sheet rolled on itself or in a helicoidal strip.

18. (Previously Presented) The printing sleeve according to Claim 14, wherein the compressible layer is molded and calibrated in thickness on a removal facilitating film.

19. (Previously Presented) The printing sleeve according to Claim 14, wherein the compressible layer is molded and rectified after expansion.

20. (Previously Presented) The printing sleeve according to Claim 2, wherein the removal facilitating layer is one of an elastomeric and a plastic polymer.

21. (Previously Presented) The printing sleeve according to Claim 2, wherein the removal facilitating layer is produced during the manufacturing of the sleeve by applying one of a gel coat and a paint on a peripheral surface after a removal facilitating agent has been applied.

22. (Previously Presented) The printing sleeve according to Claim 2, wherein the removal facilitating layer is a heat-shrinkable tube.

23. (Previously Presented) The printing sleeve according to Claim 2, wherein the removal facilitating layer is an electrostatically or thermally projected layer of a powder.

24. (Previously Presented) The printing sleeve according to Claim 2, wherein the removal facilitating layer is sufficiently smooth to promote slipping of the sleeve off and on a support sleeve.

25. (Previously Presented) The printing sleeve according to Claim 2, wherein the removal facilitating layer has a modulus of 5 to 800 MPa, a thickness of 0.02 to 0.1 mm, and a surface with an Ra factor less than 0.5 microns.

26. (Previously Presented) The printing sleeve according to Claim 2, wherein the removal facilitating layer has a friction coefficient on steel or on composite resin between 0.2 and 0.5.

27. (Previously Presented) The printing sleeve according to Claim 1, wherein the printing layer has a thickness less than 0.5 mm.

28. (Previously Presented) A printing sleeve comprising a printing layer, a compressible layer, and circumferential reinforcing composite material having a total thickness between 0.2-0.5 mm and a Young's modulus in the circumferential direction between 400-100,000 MPa, wherein the reinforcing composite material is located between the compressible layer and the printing layer.

29. (New) A printing sleeve comprising, successively and radially from the interior to the exterior, a radially internal compressible layer, a circumferential stiffening layer, and a printing layer, wherein the circumferential stiffening layer comprises a matrix comprising a material selected from the group consisting of polyolefin, polyamide, and polyester, has a thickness not exceeding 0.5 mm and a Young's modulus in the circumferential direction of at least 400 MPa, and wherein the stiffening layer is capable of undergoing a deviation of 100 to 500 microns without fracture.

30. (New) The printing sleeve according to claim 29, wherein the circumferential stiffening layer includes a reinforcing element selected from the group consisting of fibers, wires, a knit, a fabric, and a screen in a matrix of a thermosetting or a thermoplastic polymer.

31. (New) The printing sleeve according to claim 30, wherein the reinforcing elements have a single directional arrangement and are oriented generally circumferentially.

32. (New) A printing sleeve comprising, successively and radially from the interior to the exterior, a radially internal compressible layer, a circumferential stiffening layer, and a printing layer, wherein the circumferential stiffening layer comprises a matrix comprising a material selected from the group consisting of epoxy, polyurethane, acrylate, and polyester, has a thickness not exceeding 0.5 mm and a Young's modulus in the circumferential direction of at least 400 MPa, and wherein the stiffening layer is capable of undergoing a deviation of 100 to 500 microns without fracture.

33. (New) The printing sleeve according to claim 32, wherein the circumferential stiffening layer includes reinforcing elements selected from the group consisting of fibers, wires, a knit, a fabric, and a screen in a matrix of a thermosetting or a thermoplastic polymer.

34. (New) The printing sleeve according to claim 32, wherein the reinforcing elements have a single directional arrangement and are oriented generally circumferentially.